

# NE NC Partnership for Public Health Cost Benefit Analysis

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# NENCPPH Background

- Formed in 1999 to:
  - Improve the health of people in NE NC
  - Maximize available resources and service potential of LHDs through cooperation
  - Reduce geographic, socioeconomic, and racial health disparities in the region
- Served as template to NC Public Health Incubator Collaborative
- Includes 10 agencies covering 18 counties



# NENCPPH Structure

- Guided by Governing Board – Health Directors from 10 agencies serving 18 counties; NCIPH; NCDPH; ECU
- Executive Committee
- Executive Director
- Fiduciary Agents
- Per Capita Dues
- Project Staff



# NCNCPPH Projects (FY 2009)

- Touch No Tobacco (HWT)
- Diabetes Sentinel Program (HWT)
- Heart Disease and Stroke Prevention (DPH)
- Health Disparities (OMH)
- HIV/Mobile Van (KBR, DPH)
- LEAN
- GIS – CDP EH Data Management



# Evaluation Purpose



Is the juice worth the squeeze?



# Evaluation Questions

- What are the non-reimbursable costs to each Partnership agency?
- What are the benefits to each Partnership agency?
- What are the additional costs/benefits associated with various committees?
- Is the percent of in-kind contribution reasonable compared to benefits?



# Evaluation Process

- Held initial meeting with HD liaison, Exec. Director
- Developed evaluation plan
- Reviewed plan and obtained consent from health directors
- Consulted with HD liaison and Partnership Exec. Director on methods, survey data
- Consulted with program staff on output data
- Validated agency estimates twice with HDs



# Methods - Data Collection

- Primary
  - Health Director Survey (10) led to...
  - Agency Staff Survey (2 to 6 staff, 37 total)
- Secondary
  - Partnership dues
  - Meeting minutes
  - Project output reports by county
  - Fiscal agent budgets
  - HD and staff salary data



# Methods - Cost Categories

- Administrative
  - Time preparing and attending: Partnership Board meetings; and Steering, Strategic Planning, Executive, Finance, HR, Legislative/Advocacy Committees
  - Fiduciary agent
  - Assisting with grant proposals
- Project
  - Time reviewing materials, planning
  - Time spent supervising staff



# Analysis Methods – Cost Data

- Health Director In-Kind Time (survey, meeting minutes, salary)
- Staff In-Kind Time (survey, salary)
- Dues
  - Multiplied FY 09 county's service population by .10



# Methods – Benefit Source Categories

- Project Budgets
  - Staff salaries
  - Staff supervision
  - Travel
  - Communications
  - Supplies
  - Printing
  - Consulting fees
  - Administrative overhead – fiscal agents
  - Sub-account overhead and materials
  - Technical application costs



# Analysis Methods - Benefit Data

- Fiscal Agent Overhead
- Administrative Costs
- Project Funds
  - Health Disparities, Heart Disease and Stroke Prevention, LEAN – Total costs were divided by all 10 agencies



# Analysis – Benefit Data, cont.

- Project Funds, cont.
  - For HIV, Touch No Tobacco, and Diabetes Sentinel, allotted benefits based on proportion of individual outputs received by agency.
  - Example: 45 of 1207 individuals educated in Agency A, or 3.7% of total outputs. Multiplied 3.7% by 206,000 (total cost of program) for \$7,622.
  - GIS – Proportion (1/20) of web-based application to 4 GIS agencies



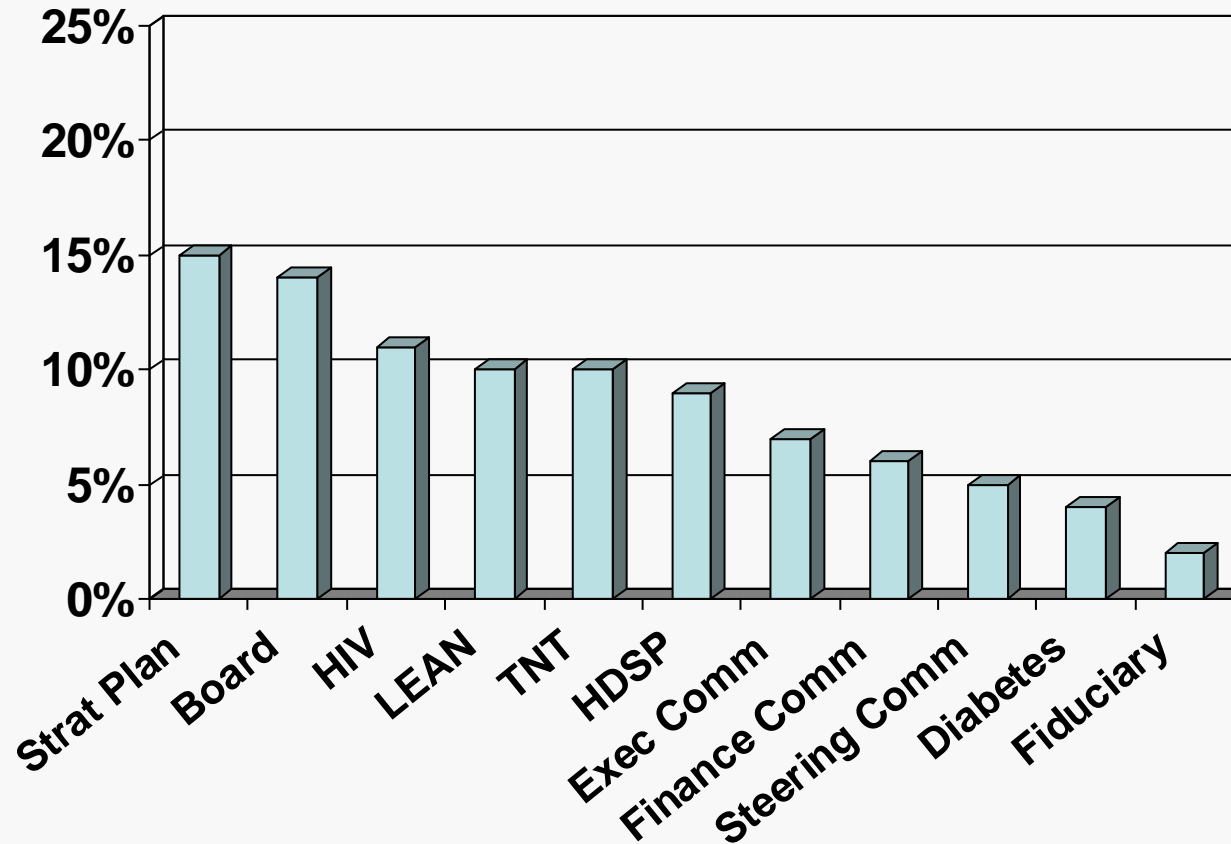
# Range of Costs

	Minimum % of FTE	Maximum % of FTE
Health Director (Median = 9.1%)	2.3%	14.2%
Staff (Median = 17.9%)	.67%	57.1%
Dues (Median = \$4,478)	\$1,017	\$16,647
Total Cost (Median = \$21,789)	\$10,378	\$45,885



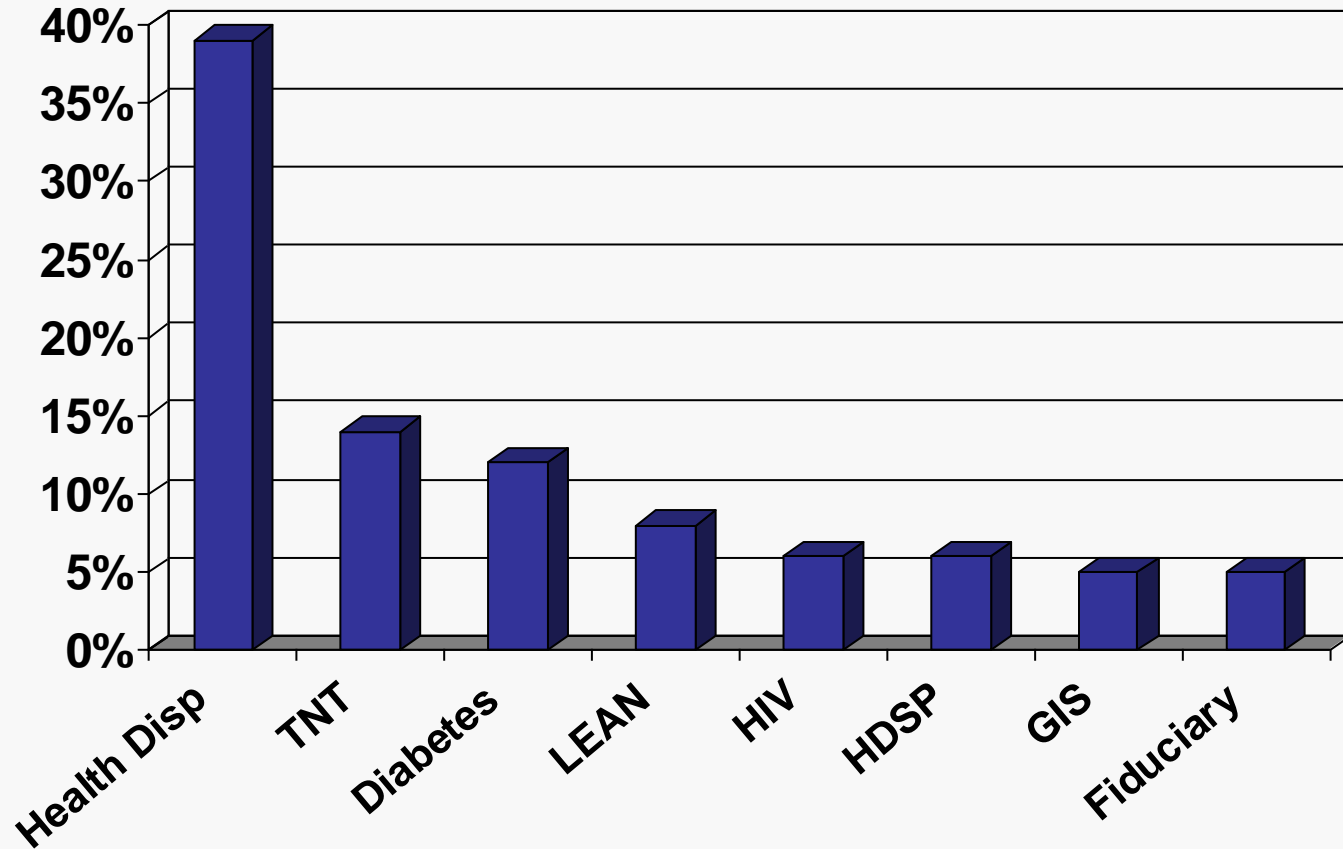
# Leading Health Director Costs

Proportion of Total Hours (n=1,880)



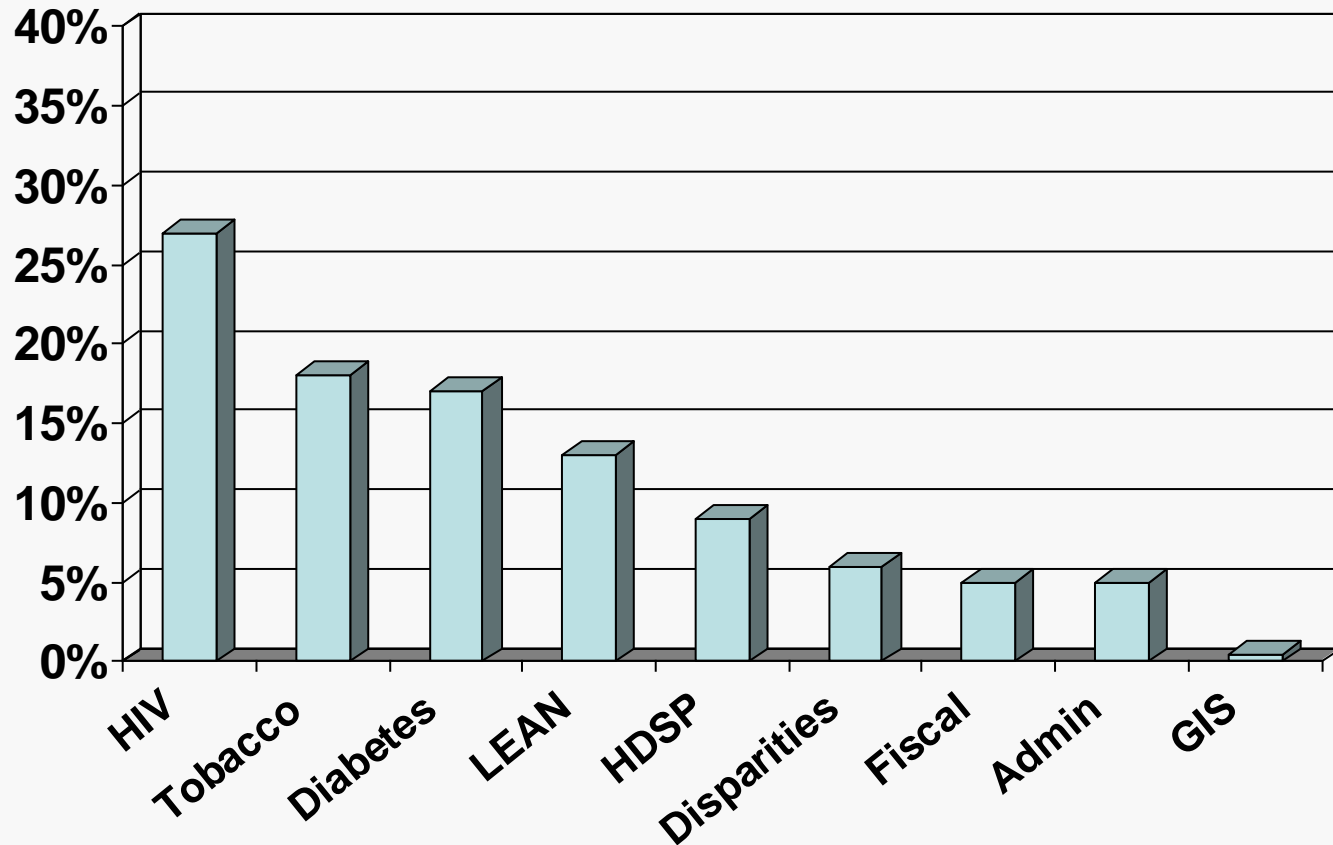
# Leading Staff Costs

Proportion of Total Hours (n=4,650)



# Proportion of Project Benefits

Proportion of Total \$\$ (1,570,906)



# Financial Benefits

	Minimum	Maximum
<b>Total Benefit</b> (Median = \$138,000)	\$61,422	\$305,852
<b>Net Benefit</b> (Median = \$111,741)	\$51,045	\$269,741
<b>Cost Benefit Ratio</b> (Median = 6.46)	2.58	13.14



# Financial Benefits of NCIPH

(not included in benefit calculation)

Administrative	Evaluation Grant Writing	NCIPH Staff In-Kind	Total
\$16,667	\$8,333	\$13,650	\$38,650



# Project Outputs - # Individuals

Prgrm	# individual outputs by category	Total Outputs	Cost per output
HIV	1,207 educated 1,054 screened 697 tested 10 in support group	2,968	\$143
TNT	2,945 educated 70 role models 121 trained 22 schools with policies	3,158	\$88



# Project Outputs

Prgrm	# individual outputs by category	Total Outputs	Cost per output
Diab	2,035 educated 479 screened 13 role models 31 churches with policies	2,558	\$103
Disparities	44 DGC at trainings 7 DGC attended retreat 8 DGC attended Conf. 200 comm. members LC	259	\$376



# Project Outputs

Prgrm	# individual outputs by category	Total Outputs	Cost per output
HDSP	65 educated 99 trained 30 screened	194	\$692
LEAN	71 staff members trained Multiple efficiency benefits	71	\$2,823



# Benefits Described by Health Directors

- Overall Benefits
  - Networking (n=6)
  - LEAN (n=5)
  - Stroke, Tobacco (n=3)
  - HIV Van, Resources (n=2)
  - Billing Group, SA Coalition, Diabetes Sentinel (n=1)
- Committee Benefits
  - Involvement in decision making (Steering, Exec, Finance)
  - Increased knowledge of agencies, other Incubators (Steering, Exec.)



# Challenges Described by Health Directors

- Overall Challenges
  - Time (n=7)
  - Dues (n=2)
  - Cost to agency (n=2)
  - Too many projects (n=2)
- Committee Challenges
  - Time (Steering, Exec, Finance)
  - Conflicting vision for Inc. funding (Steering)



# Unintended Consequences

- Unemployment payouts, RIF's, unreimbursed time and travel expense
- Time away from office, extra hours
- Finding dues \$\$
- Project related stress

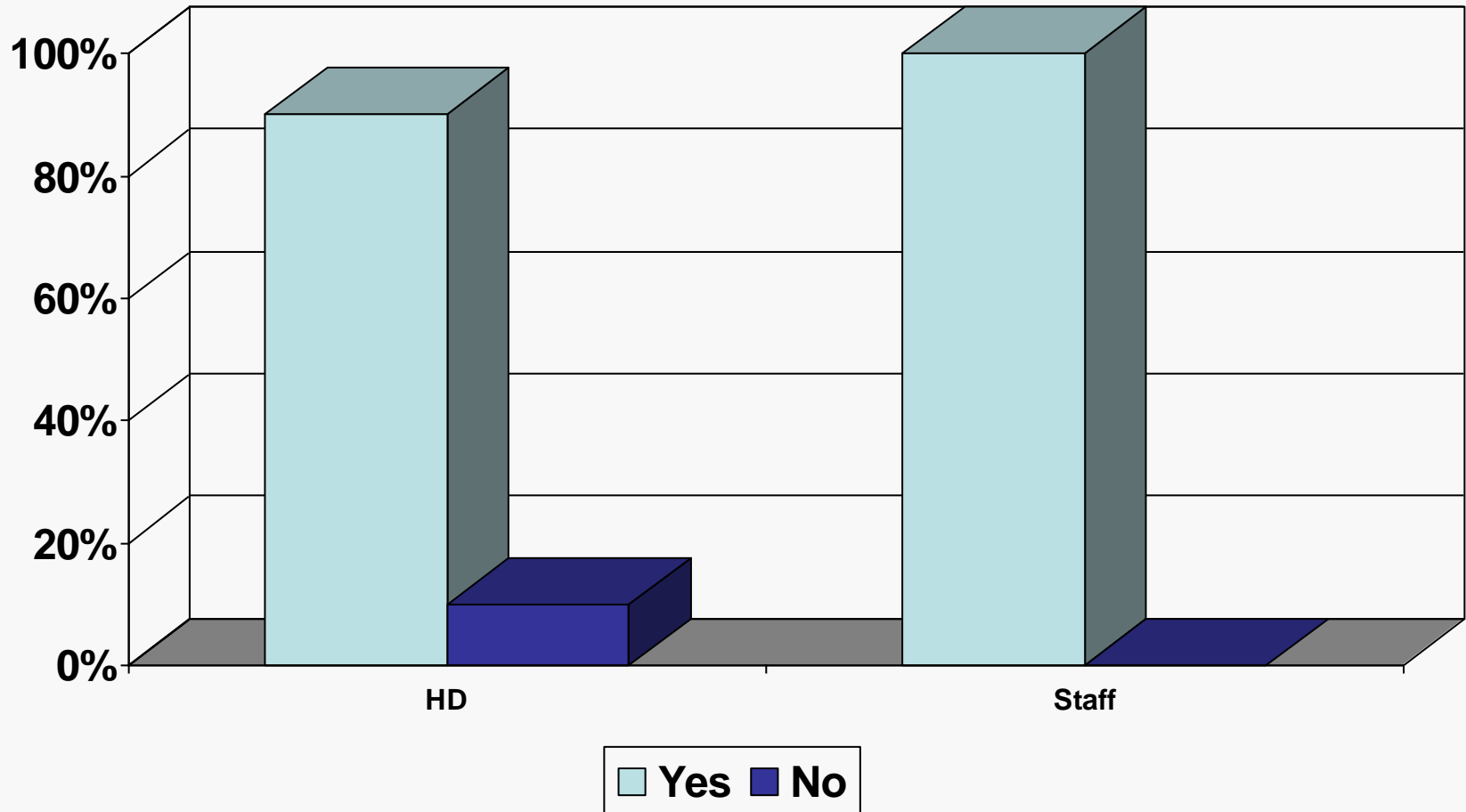


# Other Costs

- Participation in projects like this, surveys
- Space rental
- Phone calls, fax, etc.
- Sharing information with county, Board of Health
- Use of conference room
- Paying employees to attend functions



# Does the NENCPPH Make it Possible to Receive Services?



# Quotes

- *A small rural county frequently does not have access to resources, qualified/credentialed individually.*
- *Again, absolutely - as an example, our small health department would not have been able to participate in LEAN healthcare without funding assistance of the partnership.*



# Limitations

- Possibility of the following biases:
  - Selection bias
  - Recall bias
  - Recency effect
- Mean calculation of staff salary – not actual salary
- Benefits calculated with outputs not outcomes
- Uniqueness of NE Partnership



# Discussion

- Large degree of variation in CB Ratio across agencies
- Cost variation
  - Percent FTE for health director and staff time varied
  - Difference in HD and staff salaries
  - Difference in dues paid



# Discussion

- Benefit Variation
  - Tobacco, Diabetes, and HIV were drivers as their benefits were based on outputs
  - Agencies with programs “housed” in their counties tended to have higher outputs
  - Administrative overhead



# CB Ratio Variation

- Low CB Ratio (n=4)
  - High percentage of staff FTE
  - Above median for HD FTE
  - No administrative overhead
  - Limited outputs for two agencies
- High CB Ratio (n=3)
  - Lower percentage of staff FTE
  - High number of outputs
  - Received administrative overhead



# Considerations

- Cross sectional study
  - Variation in participation over 10 years
  - Variation in outputs over 10 years
- Staffing patterns (e.g., extended leave)



# Is the Percent of In-kind Contribution Reasonable Compared to Benefits?

- Partnership Level
  - Perception of distribution of project resources
  - Examination of in-kind costs by HD and staff
  - Review of CB Ratio by agency
- Agency Level – depends on factors
  - Motivation and expectations for participating
  - Budgets
  - BoH, CC perceptions of findings



# Questions, Comments, Reactions

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